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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/247,816 | 02/09/1999 | ANGUS DORBIE | 20545.0006(1 | 8083 |

7590 01/21/2003

Steven J. Rocci
WOODCOCK, WASHBURN, LLP.
ONE LIBERTY PLACE
46TH FLOOR
PHILADELPHIA, PA 19103

EXAMINER

CAO, HUEDUNG X

ART UNIT PAPER NUMBER

2671

DATE MAILED: 01/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------|------------------------|---------------------|
| Advisory Action | Application No. | Applicant(s) |
| | 09/247,816 | DORBIE, ANGUS |
| | Examiner | Art Unit |
| | Huedung X Cao | 2671 |

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) The period for reply expires _____ months from the mailing date of the final rejection.
- b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. The proposed amendment(s) will not be entered because:
 - (a) they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) they raise the issue of new matter (see Note below);
 - (c) they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3. Applicant's reply has overcome the following rejection(s): _____.
4. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. The a) affidavit, b) exhibit, or c) request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. For purposes of Appeal, the proposed amendment(s) a) will not be entered or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: _____.

Claim(s) withdrawn from consideration: _____.

8. The proposed drawing correction filed on _____ is a) approved or b) disapproved by the Examiner.

9. Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.

10. Other: _____.



MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Continuation of 5. does NOT place the application in condition for allowance because: Aleksicy teaches a method and system that provide early occlusion culling wherein a display area is modeled as a coarse z buffer being having a make up of tiles, wherein each tile is associated a depth value, and wherein the depth value is used by applications to compare objects to be rendered so as to remove occluded objects (col. 2, lines 25-31, and figure 1; col. 1, lines 36-39; col. 3, line 33-col. 4, line 7).

Green teaches a method for early culling of occluded objects, comprising: ordering all objects, the objects being included in an image being rendered, according to their distance from eye point (col. 12, lines 51-59); logically dividing area of the image into a coarse z-buffer, the coarse Z-buffer including a series of tiles, the tiles being arranged in a rectangular grid, wherein the grid may have different resolutions, and wherein each tiles has an associated depth value, the depth value being a Z-buffer value farthest from the eye that is included within that tile (col. 5, line 51-col. 6, line 8; col. 20, lines 19-26; col. 4, line 64-col. 5, line 14); constructing a surrogate volume for each object of the image, wherein each surrogate volume is a three-dimensional object that is just large enough to contain the object being ordered and wherein each surrogate volume may span only one tile of an appropriate resolution (col. 10, lines 8-26); determining a depth value of the surrogate volume that is nearest to eye of a viewer (figure 14); determine depth value of the one tile that includes the surrogate volume (figure 14); comparing the depth value of the surrogate volume versus the depth value of the tile including the surrogate volume (col. 6, lines 19-45); culling the objects whose surrogate volume has a depth value farther from the eye than the depth value of the tile, including the surrogate volume, after a single comparison (col. 4, line 64-col. 5, line 14); rendering the objects whose surrogate volume has depth value closer to the eye with the depth value of the tiles including the surrogate volume (col. 4, line 64-col. 5, line 14); a surrogate volume may span several tiles and further comprising: comparing the depth value of the surrogate volume with each of the spanning tiles (col. 6, lines 19-45); culling the objects whose surrogate volume has a depth value farther from the eye than the depth value of the tiles including the surrogate volume (col. 4, line 64-col. 5, line 14); rendering the objects whose surrogate volume has a depth values closer to the eye than the depth value of at least one of the tiles (col. 4, line 64-col. 5, line 14); subdividing the objects that are not occluded into smaller objects; determining if the smaller objects are occluded (col. 6, lines 19-45).

In the office action summary, it indicated that claims 14-18 have been allowed. Examiner would like to confirm that it's a typo errors, in the final offices action claims 14-16, and 18 are rejected.

In the final office action, Examiner states in the "Response to Arguments" section, that "Applicant's argument filed 5/15/01 have been fully considered but they are not persuasive". Again, Examiner would to confirm that it's a typo errors, the two responses in response to Office action that were filed on November12, 2001 and July 25, 2002 have been considered.